We claim:

1. A method of converting moderate amounts of heat into mechanical energy at high efficiencies, comprising the steps of:

supertropically expanding a gas vapor against a vacuum, as generated by chemosorption, in order to convert moderate amounts of heat into mechanical energy at high efficiencies.

2. The method of claim 2, further comprising the step of:

providing ammonia as the gas vapor.

3. A supertropic energy generating package system, comprising:

a gaseous source;

a thermal generator for heating the source of ammonia/water and generating a gas;

a scroll expander for expanding the gas; and

a power source being driven by the expanding gas, the power source generating electricity therefrom.

4. The system of claim 3, wherein the gaseous source includes:

ammonia and water.

5. A supertropic expansion device, for converting heat into mechanical energy, comprising:

means for expanding vapors close to, or being at saturation condition against a lower pressure than atmospheric, at polytrophic expansion conditions, as generated otherwise than by surface condensation.

6. The device according to Claim 5, further comprising:

means for achieving said polytrophic expansion conditions internally in a rotary sliding vane machine.

7. The device according to claim 5, further comprising:

means for achieving said polytrophic expansion conditions in a displacement device, by injection of fluids therein.

8. A method of generating electrical power from ammonia, comprising the steps of:

heating ammonia gas;

expanding the heated ammonia by an expander to a larger volume while dropping temperature of the ammonia gas;

driving a motor by the expander; and

generating electricity from the motor.

9. The method of claim 8, wherein the heating step includes the steps of:

heating the ammonia to approximately 700 F at approximately 75 psi.

10. The method of claim 8, wherein the expanding step includes the steps of:

increasing the volumne of the heated ammonia gas to approximately 3.6 times its original input while dropping temperature to minus approximately 70 F.

11. The method of claim 8, wherein the driving step includes the step of:

rotating a shaft attached to the motor by the expander.

12. The method of claim 8, further comprising the step of:

providing an alternator as the motor.

13. The method of claim 8, further comprising the step of:

collecting fluid from the expander in a reservoir

14. The method of claim 13, wherein the fluid can be a mixture of approximately 60% liquid and approximately 40% vapor.

15. The method of claim 13, further comprising the step of:

passing the liquid and the vapor from the receiver to an absorber.

16. The method of claim 15, further comprising the steps of:

creating a low pressure in the absorber which allows the temperature to drop from the expander; and

causing the expander to work in a substantial temperature differential for a high Carnot efficiency, and effecting a supertropic effect therefrom.

17. The method of claim 16, wherein the low pressure is approximately 3 psi, and the temperature drop in the expander is minus approximately 70F, the temperature differential is approximately 770F, and the Carnot efficiency is approximately 62.6%

18. The method of claim 16, further comprising the step of:

cycling liquid back to the absorber by a desorber to increase efficiency of the electricity being generated.

19. A method of generating electrical energy from an expanding gas, comprising the steps of:

heating fluid into a gas;

supertropically expanding the gas by an expander;

driving an electric generator by the expander;

generating electricity from the electric generator;

condensing the gas into a liquid;

passing the liquid through an absorber, a regenerator, and a desorber in a closed cycle to continuously provide a vacuum condition for the supertropic expansion.